

CLASSIFICATION RESTRICTED  
CENTRAL INTELLIGENCE AGENCY  
INFORMATION REPORT

REPORT

STAT

COUNTRY USSR  
SUBJECT Scientific Research

DATE DISTR. 22 June 1948

NO. OF PAGES 1

PLACE ACQUIRED USSR

NO. OF ENCLS.  
(LISTED BELOW)

DATE OF INFORMATION 1945

SUPPLEMENT TO

STAT

U. S. C. 18 AND 22, AS AMENDED, ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED. INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE RECORDING AGENCY.

THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH  
USE OF TRAINED INTELLIGENCE ANALYSTS

SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE  
MOSCOW INSTITUTE OF SERUM CONTROL, USSR

"Specific Polysaccharides From Proteus  $O_{19}$ ,  $O_{12}$  and  $O_{14}$ " A. M. Rusin, N. A. Novrayeva, E. P. Alisova, Moscow Inst Serum Control

"Biokhimiya" Vol 10, 1945, pp 269-78

Strain of Proteus bacilli known as  $I_{19}$  is agglutinated in serums of typhus patients. Strain  $I_2$  is not agglutinated, whereas  $I_1$  is agglutinated only in serums of certain types of typhus fever. Since antigen specificity depends on structure of polysaccharide, differences existing in polysaccharides of the respective organisms  $I_{19}$ ,  $I_2$  and  $I_1$  were determined. Analysis of polysaccharides extracted by three different methods checked perfectly. Serum agglutinations were obtained when polysaccharides were used in dilutions up to 1:5,000,000. Chemical analysis shows that polysaccharide from Proteus  $I_{19}$  differs from that of  $I_2$  as follows: The  $I_{19}$  contains about 50% glucosamine, whereas the  $I_2$  polysaccharide contains none. On acid hydrolysis, the  $I_{19}$  yields more reducing substances than the  $I_2$ . Free amino groups are absent in the  $I_{19}$  polysaccharide, but are present in the  $I_2$  polysaccharide. The  $I_2$  polysaccharide occupies an intermediate position; it contains about half the glucosamine and a fifth of the free amino groups as  $I_{19}$ . Only those Proteus polysaccharides which contain glucosamine can act as antigens in typhus infections.

- END -

- 1 -

| STATE |                                     | CLASSIFICATION |                                     | RESTRICTED |                                     | DISTRIBUTION                        |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|-------|-------------------------------------|----------------|-------------------------------------|------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| ARMY  | <input checked="" type="checkbox"/> | NAVY           | <input checked="" type="checkbox"/> | NSRB       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|       | <input checked="" type="checkbox"/> | AIR            | <input checked="" type="checkbox"/> | RDB        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

RESTRICTED